UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,273	03/10/2004	Oran Uzrad-Nali	Q74585	9389

23373 7590 02/23/2007

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER	
KINDRED, ALFORD W	
ART UNIT	**PAPER NUMBER**
2163	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/796,273	UZRAD-NALI ET AL.	
	Examiner	Art Unit	
	Alford W. Kindred	2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-59* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-59* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: Application, filed on 03/10/04.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-57 are rejected under 35 U.S.C. 102(e) as being anticipated by Shinomya, US# 20030033431.

As per claim 1, Shinomya teaches "receiving a data record having a plurality of data segments; b) saving said data segments in a local memory of a network controller (NC); c) assigning a virtual write buffer (VWB) entry, in said NC local memory, for the incoming data record" (see paragraph [0047] and [0060]) "reassembling said data segments of said data record using said VWB; and, e) sending said data record from the network controller directly to an I/O controller of a storage device" (see paragraph [0044], [0049], and [0146]).

As per claim 2, Shinomya teaches "allocating a private buffer in a host local memory" (see paragraph [0060] and [0062]).

As per claim 3, Shinomya teaches "wherein said NC is coupled to a storage

target system and to a network" (see paragraph [0060] and [0146]).

As per claim 4, Shinomya teaches "wherein the data segments are virtually reassembled in said NC local memory to form a reassembled data record" (see paragraph [0127] and [0139]).

As per claim 5, Shinomya teaches "wherein said I/O controller is further coupled to a storage device" (see paragraph [0060] and [0128]).

As per claim 6, Shinomya teaches "performing a transport layer processing on the data segments; and, ii) assigning a memory object descriptor (MOD) each to each of the data segments" (see paragraph [0018] and [0060]).

As per claims 7-8, Shinomya teaches "wherein each said MOD points to a memory location where a corresponding data segment is stored in the NC local memory . . . MODs are linked . . ." (see paragraph [0144] and [0146]).

As per claim 9, Shinomya teaches "wherein an available private buffer is used from a pool of pre-allocated private buffers" (see paragraph [0060] and [0144]).

As per claims 10 and 12, Shinomya teaches "wherein said NC maintains a VWB table, wherein said VWB table includes at least a VWB entry . . . address space of said VWB entry . . ." (see paragraph [0054] and [0064]).

As per claim 11, Shinomya teaches "at least two sub-entries, wherein a first sub-entry is an offset field and a second sub-entry is a pointer field" (see paragraph [0064] and [0071]-[0072]).

As per claims 13-14, Shinomya teaches "setting said offset field and said pointer field . . . determining a size of a corresponding data segment pointed by said each MOD

. . ." (see paragraph [0063], [0072] and [0081]).

As per claim 15, Shinomya teaches "wherein a VWB entry is associated with each said allocated private buffer" (see paragraph [0060] and [0071]).

As per claim 16, Shinomya teaches "wherein the reassembled data record is sent to the I/O controller using a sub-process comprising: a) providing said I/O controller with an address space of said private buffer associated with said VWB entry; b) translating the address space of said VWB entry to a physical address location of said reassembled data record . . .d) sending said reassembled data record directly to said I/O controller over an I/O bus" (see paragraph [0061], [0066], and [0146]).

As per claim 17, Shinomya teaches "wherein said physical address location designates a location of said reassembled data record in the NC local memory" (see paragraph [0144], [0168], and [0172]).

As per claims 18 and 19, Shinomya teaches "wherein said I/O controller is provided with the address of said private buffer, upon initiating a direct memory access (DMA) request by said I/O controller" (see paragraph [0060] and [0140]).

As per claims 20-38, these claims are rejected on grounds corresponding to the arguments given above for rejected claims 1-19 and are similarly rejected.

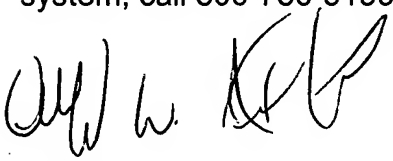
As per claims 39-57, these claims are rejected on grounds corresponding to the arguments given above for rejected claims 1-19 and are similarly rejected.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alford W. Kindred whose telephone number is 571-272-4037. The examiner can normally be reached on Mon-Fri 9:00 am- 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Alford W. Kindred
Patent Examiner
Tech Ctr. 2100